

## OCCUPATIONAL HEALTH AND SAFETY STANDARD OPERATING PROCEDURES FOR RESEARCH PERSONNEL WITH ANIMAL CONTACT

1. PURPOSE: All personnel that handle animals or unfixed animal tissues, fluids, and waste byproducts and/or are in frequent and/or close proximity to animal quarters, must either a. participate in the Medical Monitoring and Surveillance Program (MMSP); b. participate in a similar MMSP provided by an affiliate or other institution, or c. sign a waiver declining to participate. The waiver should make it clear the advantages of participation in surveillance, and the risks of non-participation. Research personnel (paid/without compensation /volunteer) may not opt out of immunizations or tests mandated by the Director or Chief of Staff for hospital staff nor opt out of testing deemed necessary to protect the health and well-being of laboratory animals (for example, TB testing of personnel with primate contact). Personnel exposed to airborne or other animal allergens on more than an occasional basis should participate. Forms (**Annual Preventive Medicine Questionnaire**) are to be turned into the Occupational Health Service annually to be risk assessed by the Occupational Health Clinician.
2. RESPONSIBILITY:
  - A. The Medical Center Director, as the Institutional Official (IO) is responsible for ensuring that the animal research program has the resources and support necessary to comply with all federal regulations and guidelines that govern animal research and protection of personnel involved in animal research. The IO is the point of contact for correspondence addressing animal research with the United States Department of Agriculture (USDA); the Public Health Service (PHS), and the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC).
  - B. The ACOS/R&D is responsible for ensuring proper oversight and care of all research animals housed on VA property, as well as research animals purchased with VA funds, no matter where they are housed. He/she is also responsible for developing and implementing a program for personal hygiene, protective safety measures, safe use of hazardous materials, and preventive medicine for personnel engaged in the care and use of research animals.
  - C. The Institutional Animal Care and Use Committee (IACUC) is responsible for performing the review and oversight functions required by PHS Policy, the *Guide for the Care and Use of Laboratory Animals*, the Animal Welfare Act, the USDA Animal Welfare Act Regulations and Standards, the requirements in VA Handbook 1200.7, and any other federal regulations that impact IACUC function. The IACUC is also responsible for performing a self-assessment review of the program of animal care and use and an inspection of the animal facilities and husbandry practices at least every 6 months. As part of this semi-annual inspection, the IACUC observes safety issues within all laboratories that use animals. Any concerns are brought to the attention of (a) the investigators and research staff, (b) ACOS/R&D and (c) IACUC members, as appropriate.

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- D. Employee Health Physician conducts pre-employment physical examinations, orders appropriate tests, reports results, maintains medical records, conducts an annual review of workers with animal contact to detect problems in the early stage and ensure that required immunizations are current and identifies those employees who are adversely affected by hazard exposure and takes appropriate action.
- E. Investigators are responsible for identifying occupational hazards, minimizing risk in their work environment, ensuring compliance with program requirements, and ensuring that all of their employees using animals have been properly trained and equipped to perform their job duties safely. Investigators are also responsible for providing education and training to personnel on the care and use of animals in research and teaching, including safe animal handling techniques. Training involves both initial and annual training requirements in safety and animal care issues.
- F. The Animal Research Facility Supervisor oversees the animal housing sites and procures all research animals. The Animal Research Facility Supervisor is responsible for maintaining a safe working environment for employees and students within the animal facility.
- G. Animal Contact Personnel are responsible for identifying and reporting unsafe working conditions to the ARF supervisor or principal investigator, complying with occupational health requirements (e.g. health and risk assessments), and complying with all other institutional health and safety policies and procedures.

3. POLICY:

- A. Key elements of a MMSP for all those with animal contact or exposure to animal allergens are as follows:
  - 1) If respirators are used, the existing facility Respiratory Protection policy will be followed.
  - 2) The following will be provided for all personnel as described under Key elements above:
    - a. A physical examination will be given at the time of employment and annually thereafter to ensure that a prospective new employee is capable of the physical demands of the position, and that pre-existing medical conditions will not place the employee or others at risk.
    - b. A chest x-ray will be given at the time of employment if deemed necessary by the Occupational Health Service Clinician.
    - c. A Tuberculosis Screening test will be performed annually, in accordance with Facility Policy.

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- d. A blood sample will be tested annually from all personnel (SMA 12 and CBC) with greater than minimal risk assessment.
3. The following optional procedures will be offered to all personnel on a voluntary basis:
  - a. Tetanus Immunization:
    - 1) basic immunization course using tetanus toxoid,
    - 2) Booster injections of toxoid will be given at 10-year intervals or when warranted by the Occupational Health Clinician.
  - b. VA employees with significant contact with dogs, cats, bats or other potential source animals will be provided the opportunity of receiving pre-exposure immunization with HDCV (human diploid cell rabies vaccine). The potential dangers of the rabies vaccine will be made known to the employee.
4. M.D. and Ph.D. investigators who have frequent contact with animals are covered by the physical examination procedures outlined the Occupational Health Service monitoring/surveillance policy.
5. Personnel working with animal subjects with possible zoonoses (a pathogen that can be transferred from animal subject to humans and back again, i.e., Herpes B virus, rat-bite fever, infectious diseases) will be given instructions and guidelines for preventative measures.
6. Principal Investigators working with infectious diseases will provide research personnel precise guidelines for dealing with the specific pathogens involved, and submit both the guidelines and a list of those at risk for retention in the individuals Occupational Health Unit medical record

At least annually after employment begins, an occupational health and safety clinician will review each employee's medical history with the employee. Particular attention should be paid to immunizations needed and to the prevention and development of allergies that could place the employee in jeopardy while in the presence or in contact with animals. This review may take the form of a questionnaire (**see attached Annual Preventive Medicine Questionnaire**) or it may take the form of a physical exam. If respirators are to be used by those covered by this policy, the employee will be enrolled in the facility's respiratory protection program, per facility policy. Additional screening may be required.

- B. Access to Animals and IACUC (Institutional Animal Care and Use Committee) Approvals  
The VA must ensure that a safe workplace is provided; all employees must provide proof to the IACUC that they have enrolled in the MMSP before they enter the animal facility or begin work with animals. Proof of enrollment or waiver by all personnel before protocols are approved, and/or before personnel are issued access cards to animal use areas required.

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**C. Occupational Safety Training**

Personnel who have contact with experimental animals should provide proof of training in the proper handling of the animals with which they will work. . Training should include the use of appropriate protective clothing, equipment, and hygiene practices. Personnel whose work responsibilities require that they lift heavy objects and/or perform tasks requiring repetitive motions will: have pre-placement physical examination through the OHS to ensure the capability to meet the physical requirements of the position; be trained in the ergonomics of their tasks

**D. Reporting Injuries and Illness**

Injuries, animal bites, animal scratches, and cuts sustained in the animal facility or research laboratory will be reported promptly to the employee's supervisor, as per Facility OHU policy. The employee will then be referred to the OHS clinician, and VA Form 2162, Report of Accident, will be completed. Illness which may be related to or impact the employee's duties are to be addressed by OHU procedures.

**E. Personal Hygiene**

An important factor in protecting the health of personnel engaged in animal care or research is personal hygiene. All employees need to understand the importance of personal hygiene and specific measures that are to be taken routinely to protect themselves against zoonotic agents found naturally in experimental animals as well as hazardous agents used experimentally in approved biomedical studies using animals.

Hand washing is a crucial safety measure for safeguarding personnel in the animal facility. Although the proper use of disposable gloves provides an effective means of preventing hand contamination, hands can easily become contaminated during the removal of contaminated gloves. Hands must be washed with soap and water whenever they touch contaminated or potentially contaminated surfaces, liquids, or body fluids. Hands will be routinely washed before eating, drinking, applying cosmetics, before touching contact lenses, and before leaving the facility: see Prevention of Infection Policy

Showers are an excellent adjunct to personal hygiene, and showering may be required after working with some hazardous agents. Showers are available to all employees with animal contact in Room ARF101.

Protective clothing is provided to employees by the facility and all employees are required to wear it while in the Animal Research Facility. The laboratory clothing and uniforms provided is cleaned by the facility on a daily basis. Disposable protective items such as gloves, masks, head and foot covers, gowns and other body cover are provided when use of these items are required. Protective clothing may not be taken away from the work site. Outer garments worn in the animal facility or other animal use areas are not to be worn in human patient care areas.

**Note: Additional guidance on the work environment can be found in the National Institutes of Health Laboratory Animal Allergy Prevention Program (LAAPP) (see Attachment A).**

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## F. INFECTIOUS DISEASE RISK TABLE:

Specific procedures required for the Occupational Safety and Health Program for the animal facility are dependent upon the degree and type of exposure to laboratory animals as well as the nature of the work being done. The following table summarizes suggested procedures for four risk categories. Additional risk categories may be added by the medical center:

Risk Category	Definition	Pre-Employment Physical	Annual Questionnaire	TB Skin Test or Chest Radiograph	Rabies Vaccine or Serology	Tetanus Toxoid	Pre-Employment and Annual Serum Banking	Toxoplasma Serology	Rubeola Vaccine	Q Fever Vaccine
1	Exposure to rodents or rabbits	++	++	++	O	++	o	o	o	o
2	Exposure to Carnivores (dog, cat, ferret)	++	++	++	+++	++	o	F + M o	o	o
3	Exposure to ruminants	++	++	++	+	++	o	o	o	+
4	Exposure to Primates	++	+++	+++	+	++	+	o	+	o

**Key:** o: Not ordinarily required. M: Male  
 +: May be advisable in some circumstances. F: Female  
 ++: Usual practice.  
 +++: Essential component of an effective program.

**Note:** *The occupational health program outlined in Table 5 of NIH Publication No. 92-3415 entitled Institutional Animal Care and Use Committee Guidebook may be a useful reference.*

## 4. REFERENCES:

A. Barkley, W.E. and J.H. Richardson, "Control of Biohazards Associated with the Use of Experimental Animals." Laboratory Animal Medicine, J.G. Fox, B.J. Cohen, and F.W. Loew, editors, 595 - 602. (New York: Academic Press, 1984).

B. Benenson, A. S., Control of Communicable Diseases in Man, 15th edition. (Washington, D.C.: American Public Health Association, 1990).

C. Biosafety in Microbiological and Biomedical Laboratories, 4th edition (or latest).

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D. Title 10 Code of Federal Regulations (CFR) Chapter 1, Parts 0-171, Nuclear Regulatory Commission. See Part 20, Standards for Protection Against Radiation.

E. Guide for the Care and Use of Laboratory Animals, U.S. Department of Health and Human Services, Public Health Service (Sixth Printing, October 2002).

F. Title 29 CFR Parts 1900-1910, Occupational Safety and Health Administration.

G. Institutional Animal Care and Use Committee Guidebook, U.S. Department of Health and Human Services, Public Health Service, (Washington, DC: NIH Publication No. 92-34115, 1992).

H. Title 40 CFR Part 261 Subpart D, Lists of Hazardous Wastes. Environmental Protection Agency.

I. Occupational Health and Safety in the Care and Use Nonhuman Primates. National Research Council, ILAR, 2003.

J. VA Manual MP-3, Part III. Safety, Occupational Health and Fire Protection (or superseding document).

5. FOLLOW-UP RESPONSIBILITY: Director's Office Administration ext. 66731.

6. REVIEW: This SOP is scheduled for review on

7. CONCURRENCE: Director  
Associate Director  
Chief of Staff  
Associate Chief of Staff/Research & Development  
Chief of Administrative Medicine

8. ATTACHMENTS:

A. National Institutes of Health Laboratory Animal Allergy Prevention Program (LAAPP).

B. Annual Preventative Medicine Program Questionnaire